Main Currents IN MODERN THOUGHT

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Volunteers to digest journals are invited. All are read retroactively as from October 1st, 1940 to ensure complete coverage. An index of contents will appear annually, summaries & basic bibliographies occasionally.

THE MEANING OF HAPPINESS, by Alan W. Watts

Reviewed by Henry Richards

From the sub-title of this book, The Quest for Freedom of the Spirit in Modern Psychology and the Wisdom of the East, the reader will perceive that it is not to be placed ignominiously among a throng of treatises for securing happiness, of which "Wake Up and Live!" by Dorothea Brande might be most representative, with Lin Yutang's "The Importance of Living" a sort of presiding genius. The author says "this book is written primarily for laymen". That alone is reason for using straight-forward language.

Yet the reader will often find whole fields of psychological, philosophical, and religious thought frozen into a few comprehensive paragraphs.

Starting from psychology's "theory of the unconscious", especially with C. G. Jung, the author shows how the Oriental terms Tao, Brahman, and the like refer to this identical territory, "the unknown self of both man and life, or nature." Says Watts: "In the West psychology is a new science; in the East it is very ancient, and in fact it is not correct to speak of Oriental philosophy at all, for in no sense is it philosophy as we understand it. Essentially it is neither speculative nor academic; it is experimental and practical, and is much closer to psychology than philosophy."

In a chapter entitled "War in the Soul", Watts attacks with grand consistency the "Problem of Opposites". He tells of the two kinds of tension, "creative" and "destructive", showing how "opposites must move in opposite directions, and yet they must be held together by a relationship and a meaning." Fear, for example, is tension, but fear of the tension caused by the original fear increases that fear until the "two opposites tend to shoot apart into utter isolation." This brings on destructive conflict.

Watts praises the spirituality of everyday life. We quote: "In itself, spirituality is purely an inner experience; it has no necessary effect whatsoever on one's outer behavior judged from the standards of efficiency and worldly-wisdom. This is not to say, however, that it is something absolutely private and personal, finding no expression that others can see....It is thus the sense that the whole might of the universe is at work in one's every thought and action, however trivial and small. In fact this is true of all men and all things, but only the spiritual man really knows it and his realization gives a subtly different quality to his life; all that he does becomes strangely alive, for though its outward appearance is perhaps the same as before it acquires a new meaning. It is this which other people notice, but if he has the gift for teaching they will see it in other ways as well. By his words as well as his deeds and his personal "atmosphere" they will understand that this realization has awakened in him a tremendous love for life in all its aspects."

Our author tells how religion once had to fulfill functions now taken over by other agencies. Many people have been able to find little assistance from religion which is concerned primarily with "morality for its own sake, speculative theology, concern for the life after death and attempts to awaken spirituality by imitating its expression....."

The author discusses, The Uses of "Evil"; St. Michael as the Dragon; Acceptance,

Partial and Total; The Three Stages of Morality; Christianity and Oriental Religion; Eastern Wisdom and Modern Man; The Danger of the Inflated Ego; The Importance of Gods and Demons; Psychology versus Metaphysics.

In speaking of gods and demons, Mr. Watts points out that the ancients had a clearer recognition of these powers than we. They recognized the fact that subconscious realms function with independence and quite apart from the will. Our "Age of Reason" has glorified its power of rationalism, and only succeeded in repressing the "gods and demons" into their lairs wherein they lurk unknown and unsuspected, but rearing ugly heads at inopportune times. Thus they may wreck havoc with individual, national, and even world affairs, working, we suspect, in national "ideologies" which evoke them into active and fierce expression. He who supposes that cool reason alone is the goddess supreme, ignores most of the vital factors that order human life.

While suggesting the use of analytical psychological method in the case of severe maladjustment, our author does not advocate the untimely probing of the unconscious levels. He would say "Let well enough alone"; allowance being made, however, for these specters to appear in their season, when they must be bravely faced and sanely dealt with. Too much exploration tends to substitute fantastic speculation and may become in itself a substitute for or escape mechanism from life's own problems of natural living.

Mr. Watts rather pities modern man both for his mistaken idea of what constitutes masculinity, which has led to an unwholesome repression of the healthier qualities of femininity in his own nature, and even more to the point, a misunderstanding of womankind in general. He believes that emotions should be used and not locked up in a cupboard. His final chapters are: The Vicious Circle; the One in the Many; The Great Liberation; The Love of Life; and there is a fine bibliography on the Psychology of the Unconscious, and Oriental Psychology and Religion.

THE MEANING OF HAPPINESS, Alan W. Watts, Harper & Bros., 1940.

TOWARD THE INDEPENDENT REALITY OF THE PSYCHE

"At the Royal Society of Medicine, Sir Arthur Hurst opened the discussion on hysterical contractures which occurred frequently following war injuries but comparatively rarely following injuries in civil life. The most common contracture followed injury to the soft parts of any type--sometimes only a twist or a sprain. Fixation in the hand, elbow, shoulder, knee, and hip were frequent. Immediately after the injury the most comfortable position was adopted or the limb was put in a splint and contracture developed thus. The limb was fixed because the patient had lost the idea of movement. It could be prevented by putting limb through complete movements when the dressing was removed. The contractures were not reflex or organic and were most likely to occur when the patient was sent to the physical therapy department.

These patients were not commonly hysterical and never had had "shell shock". They could be quickly cured with the proper treatment; Persuasion, manipulation and reeducation were more effective than hypnotism or suggestion. Unraveling these contractures by force was a barbarous method and the contractures recurred. The worst cases of shell shock were seen in France after World War I. These had been under the care of psychologist who had carried out experiments in hypnotism with disastrous results. In some cases the joints could not be moved even under general anesthesia. Hurst said he had seen a soldier whose knees were rigidly extended and under general anesthesia he did not relax, but under psychotherapy relaxation was gradually obtained. It was extremely difficult to explain such cases." (Journal, American Medical Association, PP. 1113--1114, September 28, 1940.)

TOWARD THE ORGANISATION OF THE WHOLE BY THE PSYCHE

"Dr. Weiss states that in his experience acute structural lesions in vital organs are often meager or absent in cases of instantaneous death and that the lesions offered as a cause are usually chronic. A post mortem fails to reveal proof or even cause of death, which is usually cardiac in origin and depends on an underlying physiologic mechanism. There is close interrelation between the mechanism of instantaneous death and syncope. Coronary sclerosis, aortic stenosis, nutritional deficiency, etc. predispose to syncope and instantaneous death. In the presence of coronary sclerosis there is a tendency to hypersensitivity of the vagal type of corotid simus reflex and other vagal reflexes. The tonus and activity of the reflexes of the autonomic nervous system vary considerably in normal persons. Under the influence of stress and strain or of disease a remarkable degree of hyperactivity of certain reflexes can develop. This explains why in many persons the effect of emotion or chemical stimuli on the heart and vessels is slight and surgical manipulation of certain nerve structures can be done with safety, while in others alarming seizure or death ensues. The essential difference lies in the ability to reestablish normal equilibrium. Patients with an ischemic myocartium or with hyperactive vagal reflexes are apt to die instantaneously after exertion, fright or other emotional stress or during anesthia, et c." (Instantaneous "Physiologic" Death, by S. Weiss, in Jour. A. M. A., Jan. 11, 1941, P. 167.)

DEATH IS A WITHDRAWAL OF THE CO-ORDINATOR

"Somatic death, or death of the body as an organism, occurs with the cessation of the functions of the vital centers--the heart, lungs, and brain. Molecular death, or death of the tissue cells, which goes on constantly during life incidental to the breaking down and building up of tissues, may not become complete at the time of somatic death but may be delayed until later. This may go on for only a comparatively short time because the oxygen cycle has been stopped. Tissues such as skin and bones from recently dead bodies have been successfully transplanted to living persons. The period between somatic death and molecular death is of considerable duration in frogs and eels, and in man is about 3-4 hours."
(Journal, American Medical Association, Jan. 18, 1941, P. 264.)

The five items which follow these introductory and interpretive remarks are quoted in full from Biological Abstracts and form a report on important developments in biological thinking. It is our custom in MAIN CURRENTS to accumulate crucial items, present them together, and offer philosophical meaning for them. The risk is that unwarranted general conclusions may be drawn from the life habits of some species or kingdom. The gain is that items are co-ordinated not only within one field (in this case biology), but kept in juxtaposition with data in other fields. Each item that follows bears at the end the Abstracts number and original source, as well as the name of the writer of the paragraph. We shall briefly summarise first the meanings attachable to this group of points.

1. Evolution involves a process within organisms which result in isolating a new type. Mechanisms which effect such changes may be and doubtless always are many. A name may be given to such processes: <u>speciation</u>. Speciation may be and probably is a separate process, not a by-product. When the specialization has proceeded far enough to isolate the new type sufficiently, a physiological or other isolating barrier may then be conceived as taking over. 2. Among barriers the psychological must be counted as one, as witnessed in sexual isolation, where geographical isolation has brought about sterility between types related closely enough to be inter-fertile as far as physicla factors go. We are thus compelled to keep the psychological strictly as such well forward in thinking of speciation, and perhaps as having bearing upon more than sexual factors however conspicuous it is in that connection. 3. When mutation ("the most important part in natural and artificial selection") is considered, especially in its natural and ordered character as distinct from violent changes wrought in organisms by human experimentation, we are compelled to think of a new kind of bodiless entity. Mutation may or may not be connected with specific genes or gene-factors, i.e., definitely physical biological-chemical entities. Whether it is or not, we deal with universal coinage, no doubt locked up in and impressed upon chemical stuff. The process parallels a situation in crystallography. Therein a specific form is related to a definite chemical formula. The two are not found apart. And in the crystals there is the third factor ever present, the geometry of space. That is to say, in common salt, atoms of sodium and chlorine in certain proportions are present. They are spaced out according to a regular and characteristic pattern peculiar to common salt alone. The overriding laws which govern this spacing are to be found as much in the matrix of the fourteen crystal space lattices as in the dynamics of the sodium and chlorine atoms. If we are to concede that there are units of mutation, their material expression is not determined by chemical entities alone, but by superphysical forces or frameworks, <u>a sort of lattice in space-time</u>, a governing matrix no less ideal than the space lattices of crystals. Hence there can be no understanding of mutation until time is taken as real and its properties are explored with at least as much detail as is provided in the studies of the space lattices by the brothers Bravais and others. 4. The time epochs involved in natural selection are upon astronomical proportions. Whatever may be the properties of that manifold which we call time, its over-riding control in the biologic kingdom involves the movements of the whole solar, perhaps the whole galactic and stellar system. Species are the record of some goings-on of a time-like character far beyond the relatively brief and petty psychology of an individual organism. 5. We conclude with a description of Julian Huxley's, The New Systematics, the principal current work in this domain. F. K.

Evolution involves increase of the diversity of the organisms, as well as subdividion of the living beings into discontinuous groups (races, spp., genera, etc.) that are prevented from interbreeding by isolating mechanisms. It seems reasonable to restrict the term "speciation" to the processes of the development of the isolating mechanisms. The origin of isolating mechanisms is customarily regarded as a by-product of the accumulation of genetic differences at large. This theory may not

be correct; the development of isolating mechanisms may be a separate process. If each incipient species represents an adaptive complex of genetic elements, then natural selection will favor an accumulation of genetic changes that hinder or prevent interbreeding of such species. Gradually a physiol. isolating barrier will be built up. The development of isolation may proceed best at the boundaries where the distribution regions of the incipient spp. come into contact or overlap. -- T. Dobzhansky [15634. Dobzhansky, Th. Speciation as a stage in evolutionary divergence. Amer. Nat. 74(753): 312-321. 1940.]

The forms differentiated within Peromyscus may roughly be classified according to degree of distinction as local races, subspecies or geogr. races, spp., species groups, and subgenera. Different subgenera and different species groups, so far as they have been tested in this genus, are completely intersterile. Within the P. truei species-group 2 included species are partially intersterile. In two other Pyromyscus species-groups the included spedies are potentially infertile, but in nature are separated partly by geogr. and partly by psychological (sexual) barriers, so that no interbreeding occurs. Within any sp. of Peromyscus all the subspp., so far as tested, are potentially infertile, but in nature some adjacent subspp. are separated by geogr., by ecol., or by sexual barriers. Sexual isolation seems in this genus to be of especial importance in speciation. -- L. R. Dice [15633. Dice, Lee R. The relation of genetics to geographical distribution and speciation; speciation. II. Speciation in Peromyscus. Amer. Nat. 74 (753): 289-298. 1940.]

Mutation played the most important part in natural and artificial selection; polyploidy in the flowering plants also was very important; hybridization also played a leading part, distant hybridization being very important in developing new spp. of plants; the further evolution of plants by distribution in new territories is very important; the main determining factors in further evolution and function of spp. are natural and artificial selection. Finally, Darwin's theory, unshaken for 80 years, has been confirmed through independent research of biologists in may diverse fields. -- J. W. Pincus [15639. Vavilov, N. I. (The study of the origin of cultivated plants since Darwin's time) Soviet Sci. 2. 55-75. 1940.]

IV. The effect (K) of an internal lethal factor depresses the apparent ages in doubling periods of groups or genera in Compositae. This K effect is directly proportional to the age in yrs. of the group concerned, or to time, indicating that external circumstances have little or no effect on actual numbers of spp. or genera, and that spp. in Compositae have a limited lifetime and die a normal death at the end of that period; also that ordinary genera similarly have a limited lifetime and show a decay in species production which leads to generic extinctions when combined with normal death of spp. -- V. The K values are used to obtain some approximation to the real ages in doubling periods of groups of Compositae. These "free" or real Dp-ages do not depart significantly from a rectilinear series in time, with 2 clear exceptions which tend to prove the rule. -- VI. The yr.-value of the doubling period for species, or the Dp-age unit, for flowering plants in general is very nearly 2 million years. The normal lifetime for such spp. is shown to be about 12 million yrs., the same as the maximum lifetime according to fossil records, indicating the normal death of spp. from the senescent sterility of old age. The lifetime of an ordinary genus is about 24 million yrs. but primordial genera may have still longer lifetimes. The rise and decay of a normal genus is traced diagramatically. Consequential for flowering plants are developed--(a) for the residual doubling in number of spp. with a period of about 12 m.y.: (b) for the present rate of origin of new species at about 8 per century; (c) for the present rate of normal natural extinction for old spp. which is about 5 per thousand yrs.--Further work demonstrates the presence of eliminative natural selection to an average of 50% in Birds and that the data indicating the absence of this may be confined to flowering plants and worms, no other groups having yet been investigated. -- J. Small. [15637. Small, J.

Quantitative evolution. IV. Deductions from the BAT curve. V. The free and apparent Dp-ages of Compositae. VI. Further deductions from the BAT curve. Proc. Roy. Soc. Edinburgh 58 (1): 14-54. 1938./

The chapters represent a series of analytical critical reviews of various aspects of plant and animal taxonomy, with particular reference to the influence of genetics, cytology, ecology, the selection theory, field natural history, palaeontology and developmental physiology on the development of our present-day understanding of the species concept and other taxonomic problems. The introductory chapter, Towards the new systematics, is by Julian Huxley. The other chapters are as follows: Experimental and synthetic plant taxonomy, by W. B. Turrill; Mutations and geographical variation, by N. Timofeeff-ressovsky; Taxonomic species and genetic sytems, by C. D. Darlington; The statistical consequences of Mendelian heredity in relation to speciation; by Sewall Wright; Bearings of the "Drosophila" works on systematics, by H. J. Muller; Problems of the origin of species, by Lancelot Hogben; Geographical distribution in fresh waters, with special reference to fish, by E. B. Worthington; the problem of closely related species living in the same area, by C. Diver; Economic aspects of plant taxonomy, by E. J. Salisbury; Ecology and the future of sytematics, by W.H. Thorpe; Embryology and taxonomy, by G. R. de Beer; Palaeontology and the taxonomic problem, by W. J. Arkell and J. A. Moy-Thomas; Taxonomic problems in fungi, by J. Ramsbottom; Taxonomic botany with special reference to the angiosperms, by T. A. Sprague; A museum zoologist's view of taxonomy, by W. T. Calman; Taxonomy and philosophy, by J. S. L. Gilmour; Entomological systematics examined as a practical problem, by John Smart; Natural hybridization in relation to taxonomy, by H. H. Allen; Polymorphism and taxonomy, by E. B. Ford; the origin and behavior of cultivated plants, by M. B. Crane; and the new systematics of cultivated plants, by N. I. Vavilov. -- J. E. F. /15635. Huxley, Julian (edited by). The new systematics. viii - 583 p. Illus. Oxford University Press: New York City. Pr. $6. 1940./

THE YUCCA AND ITS MOTH — A Symbiotic Miracle

The following is from Natural History, June, 1941, wherein (page 60) is a lovely picture of these quaint companions, plant and moth, indispensable to one another for thousands of years.

"In his attempt to increase the yield and beauty of plants, man has crossed carefully selected varieties, and in doing this the flowers must often be pollinated by hand. In order to prevent the flowers from being pollinated from free pollen in the air or by random insects, they must be kept covered. Thousands upon thousands of years ago the yucca moth began doing what man has only recently learned to do--to pollinate flowers according to a fixed plan. The result is that neither the yucca nor its moth can live alone. The development of this strange relationship is truly one of the most extraordinary things in the world of nature. To observe the yucca moth at work you must watch just as dusk is falling or on very dark days, because it is a nocturnal insect and hides during the day in the yucca flower, which are closed in bright light. They open in the evening, and the silky white moths come out and fly from flower to flower. The first thing the moth does is to visit the stamens and begin gathering a mouthful of pollen. The moth's mouth has become modified to perform the job of gathering and holding the pollen. Having gathered a pellet of the pollen, she flies to the pistil of the flower and presses the pellet into the forked end of the pistil, onsuring a new generation of yuccas. Then, very deliberately, she lays an egg on the pistil, and off she flies. The egg produces the young caterpillar, which crawls into the developing seed pod of the yucca and there feeds upon the seeds until it is mature. When fully grown, the caterpillar makes its way to the ground and builds a tough, silken cocoon in which

to spend the winter. The following year a new moth emerges just in time to repeat the process in a new crop of yucca blossoms. Everything is perfectly timed. The yucca has become so dependent upon the moth that its flowers cannot be fertilized in any other way. And the moth cannot fertilize any other kind of flower. Nature has so arranged things, furthermore, that the caterpillars do not eat all of the seeds."

PLANTS ON THE PROWL

The classic theory that plant roots are quite passive and that mineral ions merely diffuse into them has been shown to be erroneous. Only roots which are actively expending energy, that is giving off carbon dioxide, absorb mineral ions. Plant roots actively go after needed mineral elements, actually working for what they get rather than just letting these nutrients drift into them. A.J.P.
/Plant Roots Seek Nutrients, D. R.Hoagland and D. I. Arnor, Science News Letter 39, 19 (1941)/.

PROTOPLASMIC SLEEP

Treatment of slime molds, whose bodies consist of blobs of naked protoplasm, with various anesthetics, has shown that the streaming movement which goes on incessantly in protoplasm, was stopped by some of the drugs. The protoplasm set to a jelly like consistency unlike its usual viscous fluidity. (This effect has already been noted with body cells and anesthetics; its extension to protoplasm is new.) A.J.P. /"Jelling" Of Protoplasm Goes With Anesthesia. William Seifritz Science News Letter 39,25 (1914)/.

APPLE HIBERNATION

Putting fruits and vegetables to "sleep" in cold storage is the latest technic for preserving them. The apples are packed in latex bags, six to a package from which the greater part of air has been removed. The fruit gives off sufficient carbon dioxide in its normal respiration to slow down the metabolism--enough to literally "sleep" during the months of cold storage. This work is still experimental. G.B. (Food Industries, April, 1941, P. 73.)

GIVE IT BACK TO THE INDIANS An Anthropo-historio-socio-psychological note!

John Collier, United States Commissioner of Indian Affairs, has released recent population figures to show that Indians in this country are increasing much faster than general population and that the Indians of the Western Hemisphere have increased to a total of 30,000,000. "Increasing population accompanied by rapid gains in economic, cultural, social and spiritual progress have given the Indian a widening importance whose effects have spread to all parts of the hemisphere. The Indian and friends of the Indian in the United States are developing increasingly closer relationships with the Indians of Latin America. This is certain to be a factor in the future of hemisphere solidarity. When Columbus landed there were, in what is now the United States proper, approximately 900,000 Indians and there were about 11,000,000 Indians in the entire hemisphere. Subsequently, the United States Indian population, through wars, disease, removal, liquor and exploitation, was reduced to almost one-fourth of the pre-Columbian number and there was ample reason to believe that the Indians did, in fact constitute a dying race. In the last decade, due to steadily improving health and economic conditions largely brought about by an intelligent national interest in Indian problems, the population has shown a rapid and steady advance. Today the Indian population of the United States proper has reached a total of more than 361,000, of whom almost half are full bloods. The Eskimo and Indian population of Alaska, who are also wards of the Federal Government, now number approximately 33,000."

"These population figures", Mr. Collier continues, "when viewed in the light of other related and significant developments in a chaotic world, reveal the once-vanishing American Indian as a dynamic factor in the battle of democracy versus dictatorship. For the Indian is essentially democratic and has, in spite of vastly inferior numbers, already exerted a measurable influence on the development of democratic forms in the United States. He now seems destined to play an even larger part in shaping the course of representative government. At a time when we have witnessed the collapse of one after another of the strongholds of world democracy, it is challenging to note that in the western world, among so-called primitive people the fires of democracy still burn brightly in spite of centuries of conscious and unconscious suppression. In the Southwest there have persisted through hundreds, no, through thousands of years, little autonomous groups, the Pueblos, whose peculiarly indigenous self-government has survived successive waves of conquerors from across the seas. Fundamentally, they are the same today as always, except that they have adapted from the white man those techniques and philosophies which seemed to enrich their own. The economic and spiritual regeneration of Indians in the United States is becoming known to Indians of Latin America and has already been a factor in nullifying the propaganda of authoritarian nations who have made capital of our earlier chapters of Indian maladministration. The 30,000,000 Indians of the Americas represent a majority, even three-fourths, even nine-tenths, of the populations of countries like Mexico, Guatemala, Peru and Bolivia. Generally speaking, in the countries south of Mexico, the Indians are oppressed, disinherited, and baffled. But even before the present crisis forced the subject of hemisphere defense on all the western countries, there had taken rise both in North and South America, a strong movement in the direction of justice and welfare for Indians. The United States, for more than ten years, has been foremost among all the countries in the endeavor to restore justice, economic well-being and racial self-respect to its Indians. In April of this year, there took place in Mexico the First International hemisphere-wide Congress of Governments, dealing exclusively with the subject of Indians. The United States took a leading part at this Congress, and the Congress established a Permanent Hemisphere Institute of the Indian. This intergovernmental Indian Institute is in itself a recognition of hemisphere solidarity and its main object is to promote hemisphere solidarity -- the sharing of problems from country to country and the upbuilding of the economic situation and consumptive power of the basic populations which in many of the countries are Indian. Fundamental democracy is the reality as well as the ideal of Indian life in all the countries."

WHAT IS SPIRIT? The Great Educational Mystery

In the April 1941 issue of THE SCHOOL REVIEW Harry K. Newburn of the University of Iowa writes on the subject "Education for Life in a Democracy", the problem of the relation of the schools to democracy. He does not believe, even in the present crisis, that schools should give their entire attention to internal defense, important as that matter is, nor should it therefore be utterly ignored. But he reminds us that "The fundamental object of education to any society is to transmit to coming generations that which society thinks is good. Education is the life blood of society."

Quoting from a statement of the Educational Policy Committee, he explains how the conceptions of good and bad aims represented by force and violence or tranquility and peace have controlled the sets of educational aims.

Education must be thought of in terms "of far-reaching goals", which makes it more than a mere matter of the moment. Quoting Lord Stamp's statement that "democracy is the development of the universal sense of responsibility and sacrifice" our writer states that it is the school's job to bring about the achievement of this goal. It is only by improving men, by getting at the individual, that society as a whole will benefit. This is what education must have in view--the individual.

Mr. Newburn advocates indoctrination to the extent that the child from early life onward should be taught to view democracy, with all its weaknesses duly considered and allowed for, as the best form of social life yet devised by man.

Decrying the use of the term "freedom" as a synonym for lack of discipline, Mr. Newburn states that it is his personal belief that youth are growing up with "too little control of their minds, bodies, emotions, and characters." This, in its turn, makes it very difficult for the individual to meet the demands of his environment masterfully. It may seem a little odd to face the fact of such a maladjustment in view of the tremendous strides psychology has taken in its programs of adjustments, but it may be that psychology is facing, without the support of religion, an almost inextricable mass of complicated problems, and that, decent subject that it may be, it can only touch the fringe of these since it as yet lacks a cohesive program or even cohesion in its own ranks. This is, of course, aside from our writer's thesis, but bears some consideration.

It is easy to agree with the statement that "freedom must be earned". The child must learn to accept the responsibility which freedom inevitably implies.

It is in the conclusions Mr. Newburn reaches that we feel quite strongly in agreement, although perhaps we might go into a much more penetrating analysis of his conclusions, as perhaps he himself might, granted the space.

He states these conclusions in terms of "disciplines". The child should finally acquire the discipline that comes from an "adequate ability to use the fundamental tools of learning, such as, reading, speaking, writing, use of numbers, etc."..., the discipline of a trained mind, ...desire for further learning; the discipline coming from an understanding of the power of knowledge, the understanding of the mechanism of one's own body, the dangers of over-indulgence, the value of worthwhile tasks achieved through labor, willingness to pay the price; the discipline of carrying tasks to completion, high standards of achievement; finally, and, to us, very important, "the growing realization that the spiritual elements of life are the most important and that they represent the enduring values toward which the individual and society must strive."

Having come so far to the last statement, we are sorry to see Mr. Newburn's article unceremoniously end. That should be the starting point and not the ending.

We should like to know something about those spiritual elements, what they are, whose task it is to undertake their inculcation, methods of so inculcating, and a host of other pertinent inquiries. Writers become somewhat "airy" when faced with the word "spirit"--we are not blaming them, but we are frankly curious. Perhaps formulation is impossible or leadership unavailable or perhaps man's blindness in his concern for the "affairs of the moment" have relegated spiritual matters to the hazy realm of twanging harps and angelic choruses in some rococo Paradise believed in only by old women who demurely knit and consider the immanence of the foregoing as their sole forms of dissipation. We hope not. Or, at any rate, we would like to hope not.

H. R.

HOUSE OF THE ONE FATHER — Mary Antin

In "House of the One Father" Mary Antin asks, "What is democracy---except the ancient Hebrew idea of the Fatherhood of God, from which follows the Brotherhood of Man, here in America incorporated in a political and social system which works the principle down into daily life?" Through source papers of American history she made the exciting and integrating "discovery" that the basis of American democracy was Hebrew-Christian---that the two philosophical systems were essentially one.

She has successfully spanned the dark abyss of separation between Jew and Gentile and has a deep respect for and understanding of the Christian religion in spite of the fact that the universal practice of Jew-baiting and persecution in all Christian lands had its awful effect on her own Ghetto childhood. She has seen that "every door in America that opens to the stranger of every race and creed--whether of the schoolhouse, public library, or common playground--each is a door to the House of the One Father, where differences shrink and sometimes fall away."

In her own words "No fabricated walls of separation can again divide me and my Gentile neighbors, because I have appropriated the blessed St. Francis of the Catholic, the saintly John Woolman of the Quakers, the inexhaustible Ramakrishna of the Hindus; appropriated tardily---the One Christ of many names". And again, "I here declare that the point where I came to life as a member of modern society, where my fullest sense of responsibility is kindled is deep below the ache and horror of the Jewish dilemma, at the juncture of social forces where I see the persecution or belittlement of any group---as an attack on democracy." G. B. (Common Ground, Spring, 1941, pp. 36-42)

INTERRACIAL UNDERSTANDING — J. Pope Dyer

For the past four years the sociology classes of Central High School, Chattanooga, Tenn. have taught the outstanding unit in the South on interracial understanding. This has not been a static classroom study for there has been a steady flow of ideas and people from the classroom to the community and vice versa. The content of the unit centered around the achievements of the Negro race with particular study of a number of outstanding Negroes.

The main booklets studied were "America's Tenth Man" and "Population Problems". Every means was used to create an atmosphere of better racial understanding within the school and community. Negro and white citizens appeared in class to talk and offer advice and help. The pupils went to the community to study interracial problems, and gave a program over local radio stations. The newspapers reported class activities. Antagonistic racial areas of the city were discovered and ways planned to create a better understanding in those sections.

Many pupils began the course with great prejudice and intolerance and ended by admitting their range of acquaintance with the Negro race had been incomplete, and by showing a marked friendliness toward other races. G.B. (The Clearing House, March, 1941, pp. 416-417.)

INDIA'S PART IN VICTORY Editorial, The New Statesman and Nation, London, Dec. 14.

Isolationists score most heavily over interventionists when they demand a statement of British war aims. It is there, as the "New Statesman" acknowledges, that the whole war effort against Hitler is weakest. The policy in regard to India spotlights this deficiency and mortal danger. Indians are solidly opposed to Nazism and Communism, yet they are forced by the very weakness and vagueness of British promises, to oppose the war. One Austrian refugee said that "Nothing would so certainly win Europe as the news that India was free". And certainly nothing would more reassure those liberals who oppose or passively support the President's foreign policy in this country. The "New Statesman" offers the following intelligent program: 1. Free all Congress prisoners unconditionally; 2. Send a conciliator as Viceroy to India; 3. Recognize a National Government, including Muslims as well as Hindus; 4. Dominion status <u>now</u>. G. B. (Common Sense, March, 1941.)

FROM PURPOSE AND PROGRESS. Nels F. S. Ferre.

"History unmistakably reveals growth in the extensive modes of man's togetherness. From isolated individuals, hunting food, mankind has grown into a world-conscious community. From units of family and tribe, it has advanced to nation, and now to nations, with world connections. This whole process, moreover, has taken direction without the conscious planning of man. A unified creative push has driven him on. This push, furthermore, has worked for the most part indirectly by means of man's media of fellowship. Thus this process, by it's push, transformed man through his invention of tools from a food-finding to a food-producing animal. He discovered how to use fire. He tamed animals. He cultivated the ground. With property and it's extension, grew means of exchange, and, in turn, the protection of property and of the means of exchange. Thus governments arose and grew. Trade arose and grew. Armies arose and grew. On every hand units of organization grew. Interest in other regions and in travel grew. Men discarded stone tools for metal ones. Men developed alphabets and written languages. Men learned to measure and to build. They catalogued the stars and steered by them. They developed mathematics and physics. They invented gunpowder and the printing press. They mastered the use of steam. They went from hand tools to power driven machinery. They learned to telephone, to telegraph, to communicate by radio, and aeroplane. It is unnecessary for our present purpose to trace this technological progress in detail, but the fact remains that by means of these media of man's fellowship, man's interest and consciousness of others grew. In an indescribably short history we have passed from isolated groups of men into our present world of the newspaper, the newsreel, and the radio; a world which has become almost a unit of interest, and circumstance.

It must be noted again, that this has taken place <u>without the conscious planning of man</u>. It has happened, indirectly, chiefly by means of man's media of fellowship. Technological progress, more than any thing else, has been instrumental in achieving this end. The process of expansion is due to the push of progress in history. It is GOD working beyond what man knows. ..... GOD works through the push of progress to extend man's modes of extensive togetherness in order to SUGGEST AND TO MAKE POSSIBLE the kind of intensive content of fellowship for which He has created the world ..... We also have spiritual needs; a need to relate ourselves in some way to our spiritual environment. Man is naturally religious. Even sophisticated modern man, in disclaiming an outmoded supernationalism, talks of "a free man's worship". .....Man is a citizen of two worlds, and cannot escape that fact. When he rejects a traditional religion he makes himself a new one..... It is not a question about the form of religion. Man relates himself in some way

to the universe above and beyond him, and invariably finds some object of devotion. We must, of course, know him well to know what is the content -- of his religion, but it is there. On every level of life, even if man may seem to lack capacity, it usually is there, be it in undeveloped or in arrested forms.

Even superstition and magic are religious in intent. It is a mistake to define religion in ideal terms. Religion is man's total concern for fellowship and the superhuman condition which make it possible. Humanism itself is religious in its concern for ideal fellowship. Its mistake is in its interpretation of the superhuman conditions which make for fellowship. In this sense, therefore, religion, too, is a need. It is a form to be filled. T.M.F. (Christendom, Winter, 1941.)

INTER-FAITH CO-OPERATION

The National Conference of Christians and Jews was organized "to moderate--and finally to eliminate--a system of prejudices which disfigures and distorts" the business, social, and political relations of the people of the U. S. Now in these times of stress it is working constructively to diagnose these ills of democracy and to immunize the nation against the internal hatreds and tensions which weaken its total defense.

The interfaith Co-Operation of Jews, Catholics and Protestants does not seek uniformity of religious beliefs but maintains that even those who differ deeply in religious beliefs may work together as Americans toward such goals as social justice and understanding, freedom of religion, of speech, the press, etc. Trio teams of minister-priest-rabbi or of laymen of the three faiths appear before audiences demonstrating the cooperation possible between men of differing faiths and joining in frank and honest discussion of how and why human beings have allowed themselves to become prejudiced and intolerant.

Yearly the Conference sponsors a Brotherhood Week to build understanding and respect for differences and to stimulate cooperation among the various faiths. Chief Justice Hughes, one of the organizers of the Confernce said, "Rancor and bigotry, racial animosities and intolerance are---the deadly enemies of true democracy, more dangerous than any external force because they undermine the very foundations of democratic effort." G. B. (Common Ground, Spring, 1941, pp. 106-107.)

EVIDENCE OF UNITS IN COSMIC RAYS, by Ralph J. Danielson (An Original Paper)

ELEMENT	ATOMIC WEIGHT	BUILT FROM	FIRST PRODUCT	MASS of RAY	UNITS of		WAVE LENGTH	FREQUENCY ~/ sec.	BAND
Proton (P)	1.00758				.05597				
Hydrogen (H^1)	1.00813								
Neutron (n)	1.00893								
Deuterium(H^2)	2.01473								
Helium (He^3)-	3.01699								
Alpha (AP)	4.00276								
Helium (He^4)	4.00386	H^1	4.0325	.028	1/2		.46 XU	$638x10^{19}$	1st
Oxygen	16.00000	$2P-2H^3-2H^4$	16.0568	.056	.0559	1	.22 XU	$132x10^{20}$	
Oxygen	16.00000	H^1	16.130	.130	.111	2	.12 XU	$241x10^{20}$	2nd
Oxygen	16.00000	H^1	16.1178	.117	.111	2	.12 XU	$241x10^{20}$	2nd
Nitrogen	14.00750	H^1	14.1138	.106	.111	2	.12 XU	$241x10^{20}$	2nd
Nitrogen	14.00750	$14_1 n$	14.1250	.117	.111	2	.12 XU	$241x10^{20}$	2nd
Nitrogen	15.00489	H^1	15.1219	.117	.111	2	.12 XU	$241x10^{20}$	2nd
Magnesium	24.00000	$20H^1 1He^4$	24.1664	.166	.167	3	.078XU	$380x10^{20}$	3rd
Silicon	28.060	H^1	28.2276	.167	.167	3	.078XU	$380x10^{20}$	3rd
Magnesium	25.00000	n	25.2232	.223	.223	4	.061XU	$487x10^{20}$	4th
Magnesium	26.00000	$15_1 n$ $11H^1$	26.2233	.223	.223	4	.061XU	$487x10^{20}$	4th
Iron	55.840	He^4	56.054	.214	.223	4	.061XU	$487x10^{20}$	4th
Iron	55.840	$13AP$ $4H^1$	56.068	.228	.223	4	.061XU	$487x10^{20}$	4th

(1XU = 10^{-11} Cm.)

The unit is found by dividing the mass of the proton by 18.

The relation of mass to energy is $Mc^2 = E$ Where M is the mass in grams, c is the velocity of light in centimeters per second, (the square of this is 898,776,416,000,000,000). E is energy in ergs.

Energy also equals h x f where h is Planck's constant (6.55×10^{-27}) and f is the frequency in cycles per second.

The weight of the hydrogen atom is 1.6617×10^{-24} grams, therefore an atom of hydrogen represents or equals .0014934 ergs of energy. Mass in fractions of an atom of hydrogen is equal to M x .001493 divided by h equals the frequency.
Wavelength equals spood (29,979,600,000) divided by the frequency.

THE PROBLEM OF RELIGIOUS KNOWLEDGE

"Is God Knowable? might have made a more special appeal to readers. The volume is a survey of what a hundred thinkers have said about the possibility of knowing God. It is grouped in relation to what the author presents as the four possible ways of looking at the problem. (1) Regarding God as immediately knowable, in the way that the mystic claims to know him. (2) Identifying God with the God-idea, and either rejecting the latter as false or keeping it for its practical value. (3) Believing that God exists but denying that He can be known. (4) Accepting 'religious experience at its best' as evidnece of a reality external to ourselves 'so divine in quality and function as to be a worthy object of religious trust and worship'.

Professor Macintosh does not accept the mystics testimony about God without question because it is uncritical. The most interesting section of the book includes such thinkers as Fuerbach, John Dewey, etc. and deals with religion as illusion-either a harmful or a useful necessary one. The next group includes those---Bertrand Russell, Dean Inge, etc. -- who in some areas of their thought reduce God to ideals of absolute truth, goodness, beauty, and rationality. The third type of thought considered is 'agnostic'; as derived from Kant it asserts that no knowledge of God is possible. In this connection it is pointed out that the 'proofs' of the existence of God are not convincing unless made part of a religious experience.

In a new defense of 'empirical theology', his own position, the author insists that God is known, not in terms of absolute goodness and rationality (matters of faith) but as the divine reality which meets our religious needs. 'That is divine ---which acts in such a way as to meet our absolute reverence and devotion.' This reality is a contributing cause to experiences which are specifically religious, such as answer to prayer, etc. This does not represent all that one is entitled to think about God, for there is room for faith and hope; but it is entitled, he claims, to be called knowledge of God." (From a review by A. B.Hulen of The Problem of Religious Knowledge, by D. C. Macintosh, Harpers, 1941, $3.50---Christendom, Spring, 1941, pp. 272-273). G.B.

This is to remind friends of MAIN CURRENTS that we would be happy to have names and addresses of friends, as notified last month, to whom we may send announcement of MAIN CURRENTS.

F. K.